IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Ex Parte:	Zollner, Mark
Application Number:	10/082405
Filing Date:	February 25, 2002
Title:	Optimized Dynamic System Restart Sequence for a Wide Area Communication System
Group:	2155
Examiner:	Philip B. Tran

BRIEF ON BEHALF OF APPELLANTS UNDER 37 CFR 41.37

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Amended Appeal Brief: September 3, 2006

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I. REAL PARTY IN INTEREST

The name of the real party in interest for purposes of this appeal is Motorola, Inc., a Delaware corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals of interferences known to the Applicant, the Applicant's legal representative, or assignee which would directly affect or be directly affected by or having a bearing on the Board's decision in this pending appeal.

III. STATUS OF CLAIMS

Claims 1-17 remain in the application. Claims 1-17 are being appealed. Claims 1-17 stand or fall together.

In the final Office Action dated February 16, 2006, the Examiner rejected Claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over Kent (US Patent No. 5,659,881).

IV. STATUS OF AMENDMENTS

No amendments to the claims have been made subsequent to the final rejection mailed February 16, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

As required by independent claims 1 and 9, novel methods for determining an optimized *restart* sequence for *sites* (102) in a communication system based upon rule based criteria are disclosed in the present application. In one embodiment, a zone controller (126) in the

communication system determines the rule-based criteria by receiving the criteria from a network manager (128) in the communication system. See Applicants' specification page 8, line 10, *et seq*. and figures 1 and 3. In any case, based on the criteria, a *restart* sequence is determined (304) for the *sites* and service is established (306) for the *sites* in order of the *restart* sequence. See Applicants' specification page 10, line 11, *et seq*. and figures 1 and 3.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 1-17 are patentable under 35 USC 103(a) over Kent?

VII. ARGUMENT

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kent, USPN 5,659,881.

MPEP § 2141.03 requires:

> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Regarding Claim 1, the Examiner asserts that Kent teaches the elements of Applicants claimed invention, namely "in a communication system having a plurality of communication devices distributed among one or more sites (=multi-site environment with a plurality of communication devices) [see Fig. 1], a method comprising the steps of: determining a rule-based criteria for prioritizing the sites (=determining ruled-based (sic) criteria for call priority in different sites) [see Abstract and Col. 4, Lines 24-38]; determining, based on the criteria,

establishing service for the sites in order of the sequence (=determining event sequence for the calls from different sites and establishing the call service for different sites in priority) [see Col. 13, Line 33 to Col. 14, Line 44]. Ken (sic) does not explicitly teach a restart sequence for the sites in the event of a system restart. However, it would have been obvious to one of skilled (sic) in the art at the time of the invention was made to implement rule-based criteria for call priority in different sites based on determination of event sequence for the calls, disclosed by Kent, into the specific event of a system restart in order to establish an efficient restart sequence for different sites based on a predetermined rule-based priority sequence." Office Action, February 16, 2006, pages 2-3. It is noted that the Examiner's reliance upon Kent appears to be misplaced.

First of all, the Examiner is mistaken that "it would have been obvious to one of skilled (sic) in the art at the time of the invention was made to implement rule-based criteria for call priority in different sites based on determination of event sequence for the calls, disclosed by Kent, into the specific event of a system restart in order to establish an efficient restart sequence for different sites based on a predetermined rule-based priority sequence." As mentioned in an affidavit by inventor Mark Zollner (Reply dated December 9, 2005, in the file history and submitted with this appeal brief per 37 CFR 41.37), the invention described by Kent would not apply to system restart. Specifically, "[o]ne skilled in the art would not apply the 'ruled-based criteria for call priority in different sites based on determination of event sequence for the call, disclosed by Kent into a system restart, which is what [Applicants'] invention entails. The reason that one skilled in the art would not apply the invention described in Kent to a system restart is that Kent addresses call priority in a call contention situation and for call contention to occur, an operational communications system is required, not a system restart. Kent does not and can not apply to the system restart situation. One skilled in the art would understand that

system restart means that all the communication sites are not in service, mobility information is not updated, links are not established, etc, and in such a situation, there can be no call contention, which is what Kent requires. One skilled in the art would not take Kent's disclosure and apply it to a system restart. The invention described in Kent is limited to call contention (which requires calls) which by nature is not system restart (which is characterized by the lack of calls). This fundamental difference leads to the observation that there is no question of applying the "ruled-based criteria for call priority … for the call, disclosed by Kent" into a system restart, which is what [Applicants'] invention entails. This observation is further buttressed by the fact that the Kent disclosure discusses call contention and never discusses the absence of calls, e.g. system restart." Id.

Because Kent never discusses the absence of calls, the Kent reference actually teaches away from system restart. Because the Kent reference teaches away from system restart, the Kent reference does not teach or suggest a limitation of Applicants claimed invention as required by MPEP § 2141.03. Further, because the Kent reference is inapplicable to system restart, the Examiner is mistaken to state that "it would have been obvious to one of skilled (sic) in the art at the time of the invention was made to implement rule-based criteria for call priority in different sites based on determination of event sequence for the calls, disclosed by Kent, into the specific event of a system restart in order to establish an efficient restart sequence for different sites based on a predetermined rule-based priority sequence." Because Kent teaches away from a claimed limitation and because Kent is inapplicable to system restart, the rejection is unsupported by the art. As such, the Board should withdraw the rejection.

Second of all, contrary to the Examiner's statement that all elements, except a teaching to a restart sequence for sites in the event of a system restart, are taught in Kent, the step of

Applicants claimed invention requiring "prioritizing … sites" is not taught by the Kent reference. Kent is focused on prioritizing *calls* and Applicants claimed invention requires "prioritizing … *sites*." Because the Kent reference does not teach the limitations relating to "prioritizing … sites," the rejection is unsupported by the art and should be withdrawn.

Described by Kent is a method for resolving call contention in a multi-site trunked radio frequency communications network. As described by Kent, call contention in a multi-site environment occurs when multiple callers at different sites attempt to transmit on a common talk group at nearly the same moment. "Call contention is resolved by determining which *call* should be given priority in a contention situation based upon a predetermined common set of arbitration 'rules'. The arbitration scheme can most succinctly be described as 'first call wins, tie goes to the *highest* numbered site.' Calls that lose contention are subsequently processed as 'console-only' calls. In addition, the distributed arbitration method of the present invention also provides for the handling of 'emergency' calls by giving those calls priority over non-emergency calls." Kent, Abstract, Col. 4, Lines 24-38, Col. 13, Line 33 to Col. 14, Line 44 [emphasis added]. Thus, Kent discloses how *calls* are prioritized so that the communications network properly processes calls in a contention situation. Nowhere does Kent teach, either expressly or inherently, prioritizing *sites*, determining a restart sequence, and establishing service in order of the restart sequence.

The Examiner appears to be stating that Kent's disclosure of prioritizing *calls* based upon a *highest* numbered site as teaching Applicants' claimed limitation to "prioritizing … *sites*." This is not true. The Examiner is confusing prioritizing *calls* with Applicants' claimed limitation to "prioritizing … *sites*." Kent only describes call contention. In interpreting pending claim terms, the Examiner is reminded that MPEP 2111 requires that pending claims be given their broadest reasonable interpretation *consistent* with the specification. The claims require that the

steps comprise "prioritizing … sites" and prioritizing sites does not include any aspect of prioritizing calls, call contention, or any other call-related function. As such, the Examiner should not read the limitation to "prioritizing … sites" to encompass call contention as described by Kent.

Thus, the limitations to system restart and "prioritizing … sites" are missing from the Kent reference. Nowhere does Kent teach, suggest or make obvious these limitations as required by MPEP § 2141.03. Since such limitations are not taught or suggested by the Kent reference, the rejection under 35 U.S.C. § 103(a) is improper and should be withdrawn. For the reasons set forth above, Applicants submit that the Examiner has incorrectly rejected Claims 1-17 and request that the Board withdraw the rejection.

Respectfully submitted,

Zollner, et al.

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VIII. CLAIMS APPENDIX

1. (original) In a communication system having a plurality of communication devices distributed among one or more sites, a method comprising the steps of:

determining a rule-based criteria for prioritizing the sites;

determining, based on the criteria, a restart sequence for the sites; and

in the event of a system restart, establishing service for the sites in order of the restart sequence.

2. (original) The method of claim 1, performed by a network manager of the communication system.

3. (original) The method of claim 1, performed by a zone controller of the communication system, the step of determining a rule-based criteria comprises receiving the rule-based criteria from a network manager of the communication system.

4. (original) The method of claim 3, wherein the step of determining a rule-based criteria comprises receiving periodic updates of the rule-based criteria from the network manager.

5. (original) The method of claim 1, wherein the step of determining a rule-based criteria comprises:

determining one or more priority communication devices; and

prioritizing the sites based on locations of the one or more priority communication devices among the one or more sites.

6. (original) The method of claim 1, wherein the step of determining a rule-based criteria comprises:

determining one or more priority talkgroups; and

prioritizing the sites based on locations of affiliated talkgroup members of the one or more priority talkgroups among the one or more sites.

7. (original) The method of claim 1, wherein the step of determining a rule-based criteria comprises defining a console site as a highest priority site based on a number of monitored talkgroups at the console site.

8. (original) The method of claim 1, wherein the plurality of communication devices are distributed among one or more sites and zones, the step of determining a rule-based criteria comprises determining a rule-based criteria for prioritizing the sites and zones, the step of determining a restart sequence comprises determining a restart sequence for the sites and zones, and the step of establishing service comprises establishing service for the sites and zone in order of the restart sequence.

9. (original) In a communication system having a plurality of communication devices distributed among one or more sites, a method comprising the steps of:

determining a rule-based criteria for prioritizing the sites;

obtaining system usage data associated with the sites;

determining, based on the rules and system usage data, a restart sequence for the sites; and

in the event of a system restart, establishing service at the sites in order of the restart sequence.

10. (original) The method of claim 9, performed by a network manager of the communication system.

11. (original) The method of claim 9, performed by a zone controller of the communication system, the step of determining a rule-based criteria comprises receiving the rule-based criteria from a network manager of the communication system.

12. (original) The method of claim 11, wherein the step of obtaining system usage data comprises receiving the system usage data from a network manager of the communication system.

13. (original) The method of claim 9, wherein the step of determining a rule-based criteria comprises prioritizing the sites based on subscriber activity among the one or more sites.

14. (original) The method of claim 13, wherein the step of prioritizing the sites based on subscriber activity comprises prioritizing the sites based on numbers of affiliated subscribers among the one or more sites.

15. (original) The method of claim 13, wherein the step of prioritizing the sites based on subscriber activity comprises prioritizing the sites based on air-time usage among the one or more sites.

16. (original) The method of claim 13, wherein the step of prioritizing the sites based on subscriber activity comprises prioritizing the sites based on numbers of call requests among the one or more sites.

17. (original) The method of claim 9, wherein the plurality of communication devices are distributed among one or more sites and zones, the step of determining a rule-based criteria comprises determining a rule-based criteria for prioritizing the sites and zones, the step of obtaining system usage data comprises obtaining system usage data associated with the sites and zones, the step of determining a restart sequence comprises determining a restart sequence for the sites and zones, and the step of establishing service comprises establishing service for the sites and zone in order of the restart sequence.

IX. EVIDENCE APPENDIX

Evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, entered by the examiner and relied upon by the appellant in the appeal, or relied upon by the examiner as to grounds of rejection to be reviewed on appeal. Specifically, Mark Zollner Affidavit dated December 9, 2005 is submitted herewith.

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S)	Zollner, et al.	GROUP ART UNIT:	2155
APPLN. NO.:	10/082,405	EXAMINER:	Philip B. Tran
FILED:	February 25, 2002	Confirmation No.	3930
TITLE:	OPTIMIZED DYNAMIC SYSTEM RESTART SEQUENCE FOR A WIDE AREA COMMUNICATION SYSTEM		

AFFIDAVIT OF MARK ZOLLNER
UNDER 37 CFR § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Mark P. Zollner, declare and state that:

1. I am a citizen of the United States of America and a resident of Palatine, Illinois.

2. I hold a B.S. degree in Mathematics and Computer Science from University of Illinois at Chicago and a M.S. degree in Computer Science from Loyola University awarded in 1987 and 1992 respectively.

3. I have been employed as an Engineer by Motorola, Inc. since 1991 and am currently a Principal Staff Engineer working in the ASE group of Motorola, Inc. During my 14 years of experience, I have worked continually with communication technologies, including wireless systems.

4. I have reviewed U.S. Patents No. 5,659,881 (Kent) cited in U.S. Patent Office Action dated September 9, 2005.

5. I have reviewed the Specification, Claims, and Drawings of the Application Serial No. 10/082,405.

6. I have reviewed U.S. Patent Office Action dated September 9, 2005 in Application Serial No. 10/082,405 which contains the statement, "it would have been obvious to one of skilled in the art at the time of the invention was made to implement ruled-based criteria for call priority in different sites based on determination of event sequence for the calls, disclosed by Kent, into the

specific event of a system restart in order to establish an efficient restart sequence for different sites based on a predetermined rule-based priority sequence."

That statement is incorrect. One skilled in the art would not apply the "ruled-based criteria for call priority in different sites based on determination of event sequence for the call, disclosed by Kent" into a system restart, which is what my invention entails. The reason that one skilled in the art would not apply the invention described in Kent to a system restart is that Kent addresses call priority in a call contention situation and for call contention to occur, an operational communications system is required, not a system restart. Kent does not and can not apply to the system restart situation. One skilled in the art would understand that system restart means that all the communication sites are not in service, mobility information is not updated, links are not established, etc, and in such a situation, there can be no call contention, which is what Kent requires. One skilled in the art would not take Kent's disclosure and apply it to a system restart. The invention described in Kent is limited to call contention (which requires calls) which by nature is not system restart (which is characterized by the lack of calls).

This fundamental difference leads to the observation that there is no question of applying the "ruled-based criteria for call priority ... for the call, disclosed by Kent" into a system restart, which is what my invention entails. This observation is further buttressed by the fact that the Kent disclosure discusses call contention and never discusses the absence of calls, e.g. system restart. Thus, the limitation to "system restart" is missing from the Kent disclosure. Accordingly, the Kent reference does not teach one of ordinary skill in the art the limitations of the claims in Application Serial No. 10/082,405.

Respectfully submitted,

DATE: 12-9-05

MARK ZOLLNER

X. RELATED PROCEEDINGS APPENDIX

No decisions have been rendered by a court of the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. § 41.37.